

#### ABSTRACT OF THE DISCLOSURE

A look up table LUT with specific gray reproduction characteristics is used for converting RGB image data to multi-tone data of ink colors. The gray reproduction characteristics of LUT are set such that the color difference  $\Delta E$  of a gray color area with an arbitrary tone level in the  $L^*a^*b^*$  color system is kept at about 4 or less, assuming that the results are observed under two different light sources, such as standard light D50 and standard light A, respectively.

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